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EXAMINER

HUYNH, KIM T

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/751,427	Applicant(s) BORMANN ET AL.	
	Examiner Kim T. Huynh	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-8 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt Acknowledgement

1. Receipt is acknowledged of the request filed on 7/16/04 for a request for continued examination (RCE) under 37 CFR 1.114 based on the application No. 09/461,643, which the request is acceptable and an RCE has been established. Claims 1, 9-14 and 20 are cancelled. Currently, claims 26-27 are newly added and claims 2-8, 15-19, 21-25 are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2-6, 15-17, 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hannah (US Patent 5,784,581)

As per claims 21, Hannah discloses a system, comprising:

- A sub-system (fig.1, 12) couple a plurality of slave peripheral devices (fig.1, 14) to a bus(USB bus); (col.2, lines 6-17)
- A sub-system to couple a first default master to the plurality of slave peripheral devices through the bus; (col.2, lines 2-24, wherein by default device 14 as master and communicate with other device(slave) 14 when cpu is not detected)

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- A sub-system to detect the power management state of the first default master; (col.2, lines 1-24)
- A sub-system to determine whether the first default master in a first power management state or a second power management state;(col.2,lines 18-25, wherein controller detect presence/absence of active host, device 14 as slave if active host is detected (1st state) and device 14 as master if host is not detected (2nd state)
- A sub-system to couple the first default master to the bus as a default bus master and to couple a switchable peripheral device to the bus as a slave device if the first default master is in a first power management state; and (col.2, lines 18-32, wherein controller detect presence/absence of active host, device 14 as slave if active host is detected (1st state) and device 14 as master if host is not detected (2nd state)
- A sub-system to couple the switchable peripheral device to the bus as the default bus master if the first default master is in a second power management state.(col.2, lines 18-27)

As per claim 26, discloses an apparatus comprising:

- A plurality of slave interfaces configured to couple a plurality of slave peripheral devices to a bus; (col.2, lines 2-14), (col.3, lines 26-35), wherein controller controlling attachments device 14 to hub 12 on USB bus)

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- A master interface coupled to the plurality of slave interfaces, the master interface configured to couple a first default master to the plurality of slave peripheral devices through the bus; and (col.2, lines 6-17)
- A switchable interface coupled to the plurality of slave interfaces and the master interface, the switchable interface configured to couple a switchable peripheral device to the first default master through the bus as a slave device when the first default master is in a first power management state, and (col.2, lines 18-32)
- Couple the switchable peripheral device to the plurality of slave peripheral devices through the bus as a second default master when the first default master is a second power management state. (col.2, lines 18-27)

As per claim 27, discloses a method comprising:

- Coupling a plurality of slave peripheral devices to a bus; (col.2, lines 6-17)
- Coupling a first default master to the plurality of slave peripheral device to the first default master through the bus as a slave device when the first default master is in a first power management state; and (col.2, lines 18-32)
- Coupling the switchable peripheral device to the plurality of slave peripheral devices through the bus as a second default master when the first default master is a second power management state. (col.2, lines 1-25)

As per claim 2, discloses wherein the first power management state and the second power management state each comprises a set of power management states. (col.2, lines 1-32, wherein 1st state when cpu is actived and 2nd state when cpu is inactived)

As per claims 3, 16, Hannah discloses wherein the switchable peripheral device is capable of operating as a conventional peripheral device when coupled to the bus as the slave device. (col.3,lines 26-47, wherein controller controls operations of USB bus by transmitting signals to connect devices 14 to hub 12)

As per claims 4, 15, Hannah discloses wherein the switchable peripheral device is capable of operating as the default bus master without assistance from the first default master. (col.2, lines 1-24)

As per claims 5, 19, Hannah discloses wherein the switchable peripheral device causes the apparatus to couple the switchable peripheral device to the bus as the default bus master when the first default master is in the second power management state. (col.2, lines 18-32)

As per claims 6, 17 Hannah discloses wherein the first default master is in a sleeping state in the second power management state. (col.2, lines 18-32)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hannah (US Patent 5,784,581) in view of Odaohhara et al. (US Patent 6,574,740)

Hannah discloses all the limitations as above except wherein the second power management state includes power modes s3-s5 as defined in the Advanced Configuration and Power Interface (ACPI) specification. However, Odaohhara discloses ACPI that forms a portion of the OS and upon the detection of the interrupt signal from power controller and passes to ASL to change operation mode of CPU. (col.13, lines 6-47)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Odaohhara's teaching into Hannah's method so have the same purposes of controlling power consumption of CPU.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hannah (US Patent 5,784,581) in view of Shinoda (JP Patent 406337743A)

Hannah discloses all the limitations as above except wherein the transfer rate over the configurable link when the first peripheral device is the default bus master is different than when the computer's CPU is the default bus master. However, Shinoda discloses input device has a main CPU 1 which controls the basic constitution of a computer and a sub-CPU 2 which is controlled by the main CPU 1 and places the main CPU 1 in a sleep state while the sub-CPU2 operates. However, a data communication is fast transfer rate. See abstract

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Shinoda's teaching into Hannah's system so as to reduce the power consumption.

Response to Amendment

7. Applicant's amendment filed on 7/16/04 have been fully considered but are moot in view of the new ground(s) of rejection.

a. In response to applicant's argument that Hannah does not teach or suggest switchable interface which configured to couple the peripheral devices. Examiner respectfully disagrees. As Hannah notes at fig. 1, hub 12 is connected plurality of devices 14 and at col.3,lines 26-47 discloses controller 10 controls operations of USB bus by transmitting signals to connect devices 14 to hub 12. Thus, the prior art teaches the invention as claimed and the amended claims do not distinguish over the prior art as applied.

Conclusion

8. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9.00AM- 6:00PM.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571)272-3632 or via e-mail addressed to [mark.rinehart@uspto.gov]. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

A handwritten signature in black ink, appearing to read 'Tim Vo', with a stylized flourish at the end.

TIM VO
PRIMARY EXAMINER

Kim Huynh

Oct. 28, 2004